Sugaring through a Scottish night

I am fortunate to have a sugaring ride, just across the road from our house, that is consistently successful. It consists of 25 fence posts set on a slightly raised bank at the edge of a marshy hillside that graduates into heathland. The habitat is excellent. Even so, the number and variety of moths attending on a good night is remarkable – at the height of the season, counts of 200 noctuids at a single look are not exceptional. I have never experienced such success in Sussex, or indeed anywhere else in Scotland, and cannot explain why this particular sugaring site is so good.

Normally I check the sugar at dusk, and then a couple more times after darkness has set in. By the third look, numbers of moths have usually fallen. The temperature tends to drop a bit as well, so I go to bed. I have often wondered whether numbers would pick up again near dawn, but my curiosity has not been strong enough to overcome my desire for sleep!

This was remedied on the night of 2-3 July 2001. For north-east Scotland it was an exceptionally warm night: a steady 13°C, muggy and still with a slight south-easterly drift. Any activity of the moths would not be influenced by falling temperatures or deteriorating weather conditions, always a potential factor in such studies. To be honest, the pre-dawn check of the sugar was not planned in advance, but a spur of

Table 1. Attendance of selected species at sugar throughout the night of 2-3 July 2001 at Ordiquhill, Banffshire, compared with the catch from a Robinson mercury vapour light trap.

Species	Number at sugar 23.45hrs	Number at sugar 00.15hrs	Number at 02.15hrs	Number in m.v. trap
Flame Shoulder *Ochropleura plecta*	36	46	5	7
Large Yellow Underwing *Noctua pronuba*	10	12	6	3
Purple Clay *Diarsia brunnea*	3	2	–	–
Small Square-spot *Diarsia rubi*	30	15	67	13
Pale-shouldered Brocade *Lacanobia thalassina*	2	4	6	2
Small Angle Shades *Euplexia lucipara*	15	18	–	2
Clouded-bordered Brindle *Apamea crenata*	15	8	35	5
Dusky Brocade *Apamea remissa*	1	2	1	4
Middle-barred Minor *Oligia fasciuncula*	32	19	1	4

the moment decision as conditions seemed so favourable. Ideally, I should have done rounds of the sugar at fixed intervals all night, instead of leaving a gap. However, the results are so striking that I feel it is worth presenting them here in Table 1, above.

These results are hard to analyse. It is impossible to say whether moths disappeared from sugar because they became inactive, because they were sated, or because it was their time to fly instead of feed. The counts therefore reflect feeding activity rather than overall activity, on this one exceptionally warm night.

Even so, some of the results were surprising. I have always regarded Middle-barred Minor as a crepuscular and partially diurnal species, and most were indeed seen at dusk, but clearly it is not active – or does not feed much – at dawn. Small Angle Shades peaked later in the night, then disappeared from sugar completely. Small Square-spot and Flame Shoulder showed markedly different patterns, the latter peaking just before dawn, as did Clouded-bordered Brindle. Whether these results would be sustained over a longer series of observations is a different matter. If the pre-dawn check had produced a few desirable species not present earlier in the night, I might have been tempted to repeat it on a regular basis, but it was only the numbers that altered.

Finally, sugaring and light trapping produced very different results. Overall, the Robinson trap caught 38 species of macro-moth compared with only 21 species seen at sugar. This is hardly surprising, since light attracted notodontids and others that do not feed or, like the Pluisiinae, prefer to feed at flowers. Yet seven of the species at sugar were absent from the trap. Of the noctuids seen by both methods, only Dusky Brocade was more frequent at light, even considering that the maximum counts at sugar underestimated the numbers of individuals attending because they did not allow for turnover. The lack of proper darkness here in midsummer is partly responsible for the light trap's reduced effectiveness. Even so, it is remarkable that, for instance, at least 18 individuals of the Small Angle Shades left the sugared posts, but at best only two ended up in the trap 25 metres from the start of the ride, lending weight to the Editor's comment (*Antea*: 71) about the inadequacy of relying on light trapping alone for accurate recording of this and other species.– ROY LEVERTON, Whitewells, Ordiquhill, Cornhill, Banffshire AB45 2HS.

Lonchaea iona MacGowan, not *L. hirticeps* Zett. (Dipt.: Lonchaeidae) at Blackheath, south-east London

Since my recent record (*Ent. Rec.***114**: 211) of a male of *Lonchaea hirticeps* Zett. from Blackheath, Mr Iain MacGowan has pointed out to me that the true *L. hirticeps* is not now considered to be British. Our exponents of the last-named are, in fact, referable to one or other of a pair of lately described species, of which *L. iona* MacGowan is widespread. The author has most kindly sent me his very thorough and fully illustrated paper on our Lonchaeidae, from which it is evident that the Blackheath insect is in fact *L. iona*.– A. A. ALLEN, 49 Montcalm Road, Charlton, London SE7 8QG.